Postdoc position on modelling fires in a global vegetation model

Background:

The European Space Agency (ESA) CCI (Climate Change Initiative) project aims to generate a number of essential climate variables (ECVs) using satellite sensors. The CCI Fire Project will deliver new burned area time series over the period 2000-2017 using data from the MERIS instrument and other sensors. At the same time, specific burned area data related to “small fires” which are difficult to capture using moderate resolution images, will be developed for Africa based on data from Sentinel-2.

We seek to hire a post-doctoral fellow responsible for using the new ESA CCI fire products in a global biosphere model, and calculating the impact of fires on the carbon balance of ecosystems at regional and global scale. The position will be hired jointly between LSCE (http://www.lsce.ipsl.fr) and CEFE (http://www.cefe.cnrs.fr/fr/) two research institutes from Centre National de la Recherche Scientifique (CNRS) located near Paris and at Montpellier, respectively for a total duration of three years.

Scientific activities will cover the benchmarking of the global dynamic vegetation model ORCHIDEE using the new ESA burned area products. The novelty of this work is the focus on the simulation of fire patch distribution and post fire ecosystem resilience, combining burned area and subsequent vegetation productivity indicators (NDVI, LAI). International collaboration within the ESA CCI consortium and with fire scientists in South Africa (S. Archibald), Northern Eurasia and the US (W.M. Hao) is planned.

Qualifications and skills:

- The applicant should be enthusiastic and highly-qualified doctor holding a PhD degree in Earth System Modeling, geosciences, climate sciences or any related field to the mentioned areas. Knowledge on vegetation fires (open biomass burning) or atmospheric chemistry is desirable.
- Interest or experience with process based ecosystem modeling or data analysis with script languages (Fortran, LINUX, Matlab, Python, Rcran tools and Raster packages) or other programming languages is appreciated.
- Applicants should have solid experience in working both independently and in group. Fluency in English (oral and written) is mandatory.

Other information:

Annual Salary: 27000-30000 Euros net per year, including full social benefits
Location: Laboratoire des Sciences du Climat et de l’Environnement (LSCE) with extended visits and stay at Centre d’Ecologie Fonctionelle et Evolutive (CEFE).

Application Process: We look forward to receiving your application – including a motivation letter, a statement of research interests, a CV, and the names and contact addresses of three academic referees – Please send your application to philippe.ciais@cea.fr , florent.mouillot@ird.fr, chao.yue@lsce.ipsl.fr

The deadline for applications is 31/01/2016; start of contract expected at early 2016.